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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,538	02/12/2004	Chuang-Hua Chuch	3722-0177P	4152

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EXAMINER	
WASHINGTON, JAMARES	
ART UNIT	**PAPER NUMBER**
2625	

NOTIFICATION DATE	DELIVERY MODE
09/04/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/776,538	CHUEH, CHUANG-HUA	
	Examiner	Art Unit	
	Jamares Washington	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment and response received on July 17, 2007 have been entered. Claims 1-10 are pending. Claims 1, 5, 6, and 10 have been amended. Applicant's newly amended claims and proposed arguments are addressed hereinbelow.

Claim Rejections - 35 USC § 102

2. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Robert A. Street (US 5377022).

Regarding claim 1, Street et al discloses a scan method capable of enhancing scan quality, the scan method comprising the steps of:

(a) moving one of a document and a scan module by a predetermined distance from the other (Col. 4 lines 3-6);

(b) stabilizing the movement of one of the document and the scan module and consequently making the document and the scan module relatively stationary to each other after the step (a) (Col. 4 lines 32-34);

(c) illuminating the document with light rays from a light source, and receiving a stable image signal of the document by utilizing an image sensor of the scan module after the step (b) (Col. 4 lines 35-39); and

(d) terminating the receiving operation of the image sensor and shutting off the light source after the image sensor has received the stable image signal for a first predetermined period of time (Col. 4 lines 35-39).

Regarding claim 2, Street et al discloses the scan method as rejected in claim 1, wherein the step (a) comprises a step of:

feeding the document to generate the predetermined distance from the stationary scan module (Col. 4 lines 14-17).

Regarding claim 3, Street et al discloses the scan method as rejected in claim 1, wherein the step (a) comprises a step of:

moving the scan module by the predetermined distance from the stationary document (Col. 4 lines 3-6).

Regarding claim 4, Street et al discloses the scan method as rejected in claim 1, wherein the light source is a light-emitting diode ("...this invention uses a two-dimensional image sensor array to scan a single sheet of paper" at column 1 line 10).

Regarding claim 5, Street et al discloses the scan method as rejected in claim 1, further comprising the steps of:

receiving a first mode signal or a second mode signal selected by a user ("...the illuminator 40 could be turned off" at column 3 lines 44 and 45); executing steps (a) to (d) when the first mode signal is received (Illuminator turned on); and executing the following steps when the second mode signal is received (Illuminator turned off):

(a1) continually illuminating the document with the light rays from the light source (Col. 3 lines 45-49. Ambient room light is continuous illumination.);

(b1) moving one of the document and the scan module by the predetermined distance from the other, and receiving a standard image signal of the document by utilizing the image sensor of the scan module (Col. 4 lines 3-6);

(c1) stabilizing the movement of one of the document and the scan module and consequently making the document and the scan module relatively stationary to each other after the step (b1) (Col. 4 lines 32-34); and

(d1) terminating the receiving operation of the image sensor after the image sensor has received the standard image signal for a second predetermined period of time after the step (c1) (Col. 4 lines 35-39. "An image read time of about one second per page is adequate" at column 3 line 49).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Street et al in view of Nikolai R. Tevs (US 20020064300).

Regarding claim 6, Street et al discloses a scan method capable of enhancing scan quality, the scan method comprising the steps of:

(a) continually illuminating a document with light rays from a light source (see rejection of claim 5);

(b) moving one of the document and a scan module by a predetermined distance from the other (see rejection of claim 5);

(c) stabilizing the movement of one of the document and the scan module and consequently making the document and the scan module relatively stationary to each other (see rejection of claim 5 above), and receiving a stable image signal of the document by utilizing the image sensor of the scan module after the step (b) (see rejection of claim 5 above); and

(d) terminating the receiving operation of the image sensor after the image sensor has received the stable image signal for a first predetermined period of time (see rejection of claim 5 above).

However, Street et al fails to teach discarding an unstable image signal of the document by utilizing an image sensor of the scan module at the same time as the moving step.

Tevs, in the same field of endeavor, teaches discarding an unstable image signal of the [object] by utilizing an image sensor of a scan module ("In a preferred arrangement, the step of analyzing the values includes discarding one or more of the values corresponding to at least one

of the subsequent sequential signals. This is done by detecting those values which are physically impossible or statistically improbable based upon data up to date" at paragraph [22]. The step of analyzing is performed after "processing" as described in paragraphs [11-13]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art for the image acquisition method as disclosed by street et al where ambient light provides continuous illumination to employ discarding an unstable image signal of the [object] by utilizing an image sensor of the scan module as taught by Tevs et al to compensate for the poor image signal data acquired while the document and the sensor are coming into contact with one another before becoming stationary. Applicant has not disclosed that moving a document and scan module by a predetermined distance from one another and discarding an unstable image signal "at the same time" provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with discarding unstable image signals during image processing as taught by Tevs et al or the claimed "at the same time" of image acquisition.

Regarding claim 7, Street et al discloses the scan method as rejected in claims 6 and 2, wherein the step (b) comprises a step of:

feeding the document to generate the predetermined distance from the stationary scan module.

Regarding claim 8, Street et al discloses the scan method as rejected in claims 6 and 3, wherein the step (b) comprises a step of:

moving the scan module by the predetermined distance from the stationary document.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Street et al in view of Tevs et al as applied to claim 6 above, and further in view of Stefan Lauxtermann et al (US 20010015831)

Regarding claim 9, Street et al discloses the scan method as rejected in claim 6,

Street et al fails to expressly disclose or suggest wherein the image sensor has an electronic shutter.

Lauxtermann et al, in the same field of endeavor, teaches an image sensor ("This document thus discloses an integrated image sensor using CMOS technology in the form of a single chip" at paragraph [5]) which has an electronic shutter ("Another advantage of the present invention lies in the fact that the exposure and reading operations are made entirely independent. An electronic shutter is thus effectively made" at paragraph [19]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the image sensor as disclosed by Street et al where the illumination is continuous to employ the teachings of Lauxtermann et al where the image sensor has an electronic shutter because with continuous illumination, the exposure and reading operations are made entirely independent therefore one would need to control the exact time at which image reading should take place to acquire a quality image.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Street et al in view of Tevs et al as applied to claim 6 above, and further in view of Lauxtermann and Fumikazu Nagano (US 5687003).

Regarding claim 10, Street et al discloses the scan method as rejected in claim 6, further comprising the steps of:

executing steps (a) to (d) when the first mode signal is received (First mode being a mode in which speed of imaging is a priority. It is clear from the steps that the imaging is done throughout to transport process of the document therefore causing unstable image signals which would need to be discarded and would decrease quality because it is somewhat of an interpolation method but would subsequently speed data acquisition); and executing the following steps when the second mode signal is received (The second mode being a quality mode in which data acquisition is implemented only when the document and sensor are stationary and a shutter is used to acquire a stable image as rejected in claim 9):

(a1) continually illuminating the document with the light rays from the light source (see rejection of claim 6);

(b1) moving one of the document and the scan module by the predetermined distance from the other, and receiving a standard image signal of the document by utilizing the image sensor of the scan module (see rejection of claim 9);

(c1) stabilizing the movement of one of the document and the scan module and consequently making the document and the scan module relatively stationary to each other (see rejection of claim 6); and

(d1) terminating the receiving operation of the image sensor after the image sensor has received the standard image signal for a second predetermined period of time after the step (c1) (as rejected in claim 5).

Street et al fails to disclose receiving a first mode signal or a second mode signal selected by a user.

Nagano, in the same field of endeavor, teaches receiving a first mode signal or a second mode signal selected by a user ("It is therefore an object of the present invention to provide a reader capable of selecting either the high-resolution mode or the high-speed mode and further enabling the read to be performed at higher speed in the high-speed mode and/or at higher quality in the high-resolution mode" at column 3 lines 5-9). If the sensor is incorporated with two selectable modes, the modes are communicated to the processing means via a signal.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a user-selectable dual mode image reader as taught by Nagano in the scan method as disclosed by Street et al wherein the document is continuously illuminated to produce image documents according to the user's output needs.

Response to Arguments

7. Applicant's arguments, see remarks, filed July 2, 2007, with respect to the rejection(s) of claim(s) 1-5 under 35 USC 102(e) and claim(s) 6-10 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon

further consideration, a new ground(s) of rejection is made in view of Steet et al, Tevs et al, Lauxtermann et al, and Nagano as shown above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamares Washington whose telephone number is (571) 270-1585. The examiner can normally be reached on Monday thru Friday: 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jamares Washington
Junior Examiner
Art Unit 2625

JW

August 23, 2007

KING Y. POON
SUPERVISORY PATENT EXAMINER